

CLAIMS

What is claimed is:

1. A method for assigning responsibility for resource reservation protocol (RSVP) signaling in order to support multimedia communications between a user equipment (UE) in a wireless communication network and a user of an external network, the wireless network having both the UE and a general packet radio service gateway support node (GGSN) capable of supporting RSVP signaling, the method comprising:

providing a policy control function (PCF) capable of assigning RSVP signaling to either the GGSN or UE;

the PCF assigning RSVP signaling to the GGSN or UE;

if the PCF assigns RSVP signaling to the GGSN:

the PCF signaling the GGSN assignment to the GGSN;

the PCF signaling the UE not to perform RSVP signaling; and

in response to receiving the GGSN assignment, the GGSN performing RSVP signaling; and

if the PCF assigns RSVP signaling to the UE:

the PCF signaling the UE assignment to the GGSN;

the PCF signaling the GGSN not to perform RSVP signaling; and

in response to receiving the UE assignment, the UE performing RSVP signaling.

2. The method of claim 1 wherein the PCF delegates the RSVP signaling assignment to the GGSN.

3. The method of claim 2 wherein the GGSN bases the delegated RSVP signaling assignment in response to local traffic conditions.

4. The method of claim 2 wherein the GGSN bases the delegated RSVP signaling assignment to a local policy of the GGSN.

5. A method for assigning responsibility for resource reservation protocol (RSVP) signaling in order to support multimedia communications between a user equipment (UE) in a wireless communication network and a user of an external network, the wireless network having both the UE and a general packet radio service gateway support node (GGSN) capable of supporting RSVP signaling, the method comprising:

providing the GGSN capable of assigning RSVP signaling to either the GGSN or UE; the GGSN assigning RSVP signaling to the GGSN or UE;

if the GGSN assigns RSVP signaling to the GGSN:

the GGSN signaling to the UE not to perform RSVP signaling; and

the GGSN performing the RSVP signaling; and

if the GGSN assigns RSVP signaling to the UE:

the GGSN signaling the UE assignment to the UE;

in response to receiving the UE assignment, the UE performing RSVP signaling.

6. The method of claim 5 wherein the GGSN bases the RSVP signaling assignment in response to local traffic conditions.

7. The method of claim 5 wherein the GGSN bases the RSVP signaling assignment in response to a local policy of the GGSN.

8. The method of claim 5 wherein the GGSN bases the RSVP signaling assignment on a negotiation between the GGSN and UE.

9. The method of claim 5 wherein in response to the GGSN receiving a message indicating the GGSN should perform RSVP signaling from the UE, the GGSN makes the RSVP signaling assignment.

10. The method of claim 5 wherein if the GGSN assumes the RSVP signaling an acknowledgment is sent to the UE and if the GGSN assigns the RSVP signaling to the UE a negative acknowledgment is sent to the UE.

11. A method for assigning responsibility for resource reservation protocol (RSVP) signaling in order to support multimedia communications between a user equipment (UE) in a wireless communication network and a user of an external network, the wireless network having both the UE and a general packet radio service gateway support node (GGSN) capable of supporting RSVP signaling, the method comprising:

 sending a first message from one to another of the UE or GGSN indicating whether the UE or GGSN should perform the RSVP signaling; and

 in response to receiving the first message, the other of the UE or GGSN sending a second message indicating an acceptance or declining the indicated performer.

12. The method of claim 11 wherein the GGSN is the one and the UE is the other, the method further comprising if the GGSN receiving the second message indicating declining, the GGSN deciding who performs RSVP signaling.

13. The method of claim 11 wherein the GGSN is the one and the UE is the other and the first message indicating the GGSN assuming RSVP signaling, the method further comprising if the GGSN receiving the second message indicating an acceptance, the GGSN performing RSVP signaling.

14. The method of claim 11 wherein the UE is the one and the GGSN is the other, the method further comprising in response to receiving the first message the GGSN determining who performs the RSVP signaling.

15. The method of claim 14 wherein the GGSN determining the RSVP signaling performing based on the local traffic conditions.

16. The method of claim 14 wherein the GGSN determining the RSVP signaling performing based on a local policy of the GGSN.